

1 CLAIM LISTING

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3 1. (Previously Presented) A method of designing a logic circuit to provide a predetermined
4 logical operation, the method including the steps of:

- 5 (a) defining a logic synthesis block comprising a single dynamic logic circuit;
- 6 (b) performing logic synthesis for the predetermined logical operation to produce an
7 intermediate circuit, the logic synthesis being performed utilizing a synthesis
8 library constrained to the logic synthesis block;
- 9 (c) eliminating unused devices in the intermediate circuit to produce a final circuit;
10 and
- 11 (d) sizing the devices in the final circuit.

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13 2. (Currently Amended) The method of Claim 1 wherein the step of defining the logic
14 synthesis block includes selecting the largest practical dynamic AND/OR circuit for the
15 integrated circuit fabrication technology in which the logic circuit is to be implemented.

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17 3. (Original) The method of Claim 2 wherein the logic synthesis block comprises a four
18 high and four wide dynamic AND/OR circuit.

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20 4. (Original) The method of Claim 1 wherein the step of performing logic synthesis
21 includes leaving the size of the devices in the logic synthesis block substantially
22 unconstrained.

1 5. (Original) The method of Claim 1 wherein the step of eliminating unused devices from
2 the intermediate circuit includes detecting devices having a state that remains constant as
3 the intermediate circuit operates to provide the predetermined logical operation.

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5 6. (Original) The method of Claim 1 wherein the step of sizing the devices in the final
6 circuit includes analyzing the final circuit to determine the characteristics of each device
7 in the final circuit necessary in order to consistently provide the predetermined logical
8 operation and meet drive requirements.

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10 7. (Original) The method of Claim 1 wherein the logic synthesis block uses a single
11 activation/reset clock signal.

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13 8-12 Canceled

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15 13. (Currently Amended) In a circuit design method utilizing a logic synthesis tool and
16 predefined logic circuit library to provide a logic implementation for a predetermined
17 logical operation, the improvement comprising:

- 18 (a) defining a logic synthesis block comprising a single dynamic logic circuit; [[and]]
19 (b) in performing logic synthesis for the predetermined logical operation to produce
20 an intermediate circuit, constraining the logic synthesis tool to the logic synthesis
21 block;
22 (c) eliminating unused devices in the intermediate circuit to produce a final circuit;
23 and

1 (d) sizing the devices in the final circuit.

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3 14. Canceled

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5 15. (Original) The method of Claim 13 wherein the step of defining the logic synthesis block
6 includes selecting the largest practical dynamic AND/OR circuit for the circuit
7 fabrication technology in which the circuit design is to be implemented.

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9 16. (Original) The method of Claim 13 wherein the logic synthesis block comprises a four
10 high and four wide dynamic AND/OR circuit.

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12 17. (Original) The method of Claim 13 further including the step of leaving the device size
13 in the logic synthesis block substantially unconstrained for the logic synthesis tool.

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15 18. (Original) The method of Claim 13 wherein the logic synthesis block uses a single
16 activation/reset clock input.